



NUCLEAR REGULATORY COMMISSION

[Docket Nos. 05200050 and 99902078; NRC-2023-0027]

NuScale Power, LLC

AGENCY: Nuclear Regulatory Commission.

ACTION: Standard design approval application; receipt.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is providing public notice of the receipt and availability of a standard design approval (SDA) application from NuScale Power, LLC (NuScale) for a Small Modular Reactor (SMR) design. The SDA application was submitted in a number of transmittals between the period of November 23, 2022, and December 31, 2022.

DATES: The SDA application referenced in this notice was available on January 1, 2023.

ADDRESSES: Please refer to Docket ID **NRC-2023-0027** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2023-0027**. Address questions about Docket IDs to Stacy Schumann@nrc.gov; telephone: 301-415-0624; email: Stacy.Schumann@nrc.gov. For technical questions, contact the individual listed in the "For Further Information Contact" section of this document.

- **NRC's Agencywide Documents Access and Management System**

(ADAMS): You may obtain publicly available documents online in the ADAMS Public Documents collection at <https://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "Begin Web-based ADAMS Search." For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by email to PDR.Resource@nrc.gov. The NuScale application is available in ADAMS under Package Accession No. ML22339A066.

- **NRC's PDR:** You may examine and purchase copies of public documents, by appointment, at the NRC's PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to PDR.Resource@nrc.gov or call 1-800-397-4209 or 301-415-4737, between 8 a.m. and 4 p.m. eastern time (ET), Monday through Friday, except Federal holidays.

FOR FURTHER INFORMATION CONTACT: Getachew Tesfaye, Office of New Reactors, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; telephone: 301-415-8013, email: Getachew.Tesfaye@nrc.gov.

SUPPLEMENTARY INFORMATION:

By letter dated November 21, 2022 (ADAMS Accession No. ML22325A349), NuScale informed the NRC of its intent to submit an SDA application in stages, along with supporting technical reports, by December 31, 2022. By letter dated November 23, 2022, NuScale submitted the first part of its application (non-public, withheld pursuant to 10 CFR 2.390) for a standard design approval of the NuScale US460 SMR design, pursuant to section 103 of the Atomic Energy Act of 1954, as amended, and part 52, subpart E, of title 10 of the *Code of Federal Regulations* (10 CFR), "Licenses, Certifications, and Approvals for Nuclear Power Plants." Subsequently, NuScale submitted the remaining portions of its application in stages, between November 29, 2022, and December 31, 2022. The SDA application is available in ADAMS under Package Accession No. ML22339A066.

As described in the November 21, 2022, letter, the application contains the final safety analysis report (FSAR) chapters and parts thereof. Supporting technical reports are cited throughout the application, some of which are attached to the corresponding FSAR chapter; other technical reports cited in the application are available as standalone documents in ADAMS, if publicly available. Following these submittals, NuScale submitted additional supporting licensing topical reports (LTRs), which were required to be submitted before the SDA application could be accepted for review. By

January 8, 2023, NuScale submitted these LTRs to the NRC. The NRC staff is currently reviewing the application and supporting information to determine if it is sufficiently complete to be acceptable for docketing and for commencement of the staff's detailed safety review.

The NuScale US460 SMR is a pressurized-water reactor. The design is based on the Multi-Application Small Light Water Reactor developed at Oregon State University in the early 2000's. The NuScale US460 SMR is a natural circulation light-water reactor with the reactor core and helical coil steam generator located in a common reactor vessel in a cylindrical steel containment. The NuScale power module is partly immersed in water in a safety related pool. The reactor pool is located below grade and is designed to hold up to six power modules. Each NuScale SMR has a rated thermal output of 250 megawatts thermal and an electrical output of 77 megawatts electric (MWe); accordingly, a plant containing six modules would have a total capacity of 462 MWe. The acceptability of the tendered application for docketing and other matters relating to the request will be the subject of subsequent *Federal Register* notices.

Dated: March 13, 2023.

For the Nuclear Regulatory Commission.

Getachew Tesfaye,
Senior Project Manager,
New Reactor Licensing Branch,
Division of New and Renewed Licenses,
Office of Nuclear Reactor Regulation.

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